

CLAIMS

1. A multimedia data processing device, comprising:

a script implementing unit (1003) for reproducing data that is referred from a script that is included in a template in accordance with said script;

a user changeable data determining unit (1004) for determining a portion changeable by a user among said data that is referred from said script;

a data changing unit (1007) for changing said portion changeable; and

a script and data outputting unit (1009) for outputting at least either said script or said data changed.

2. A multimedia data processing device, comprising:

a script implementing unit (1003) for reproducing data that is referred from a script that is included in a template in accordance with said script;

a function selecting unit (1012) for selecting a function of said multimedia data processing device in accordance with said script that is included in said template;

an action determining unit (1013) for determining which process is to be carried out on the data that is referred from said script by using said function selected in accordance with said script that is included in said template;

an action implementing unit (1014) for implementing said process determined; a data changing unit (1007) for changing said data that is referred from said script; and

a script and data outputting unit (1009) for outputting at least either said script or said data changed.

3. The multimedia data processing device according to claim 2, wherein time restriction for determining an action that is carried out on said data that is referred from said script is described in said template, and said action implementing unit carries out

said process determined in accordance with said time restriction.

4. The multimedia data processing device according to claim 2, wherein said action determining unit acquires data that includes any pieces of data from among still
5 image data, animated image data, sound data and position information data that is acquired by means of a GPS (global positioning system) or the like by using said function selected, and determines which process is to be carried out on said data that is referred from said script by using said data acquired.

10 5. The multimedia data processing device according to claim 2, wherein said action determining unit acquires data via a network by using said function selected, and determines which process is to be carried out on said data that is referred from said script by using said data acquired.

15 6. The multimedia data processing device according to claim 2, wherein said determined process that is carried out in said action implementing unit is a process for accessing a predetermined WEB page.

20 7. The multimedia data processing device according to claim 2, wherein said process determined that is carried out in said action implementing unit is a process for calling a predetermined telephone number.

8. The multimedia data processing device according to claim 2, wherein
said action implementing unit is characterized by acquiring data by using said
25 function selected and by carrying out a conversion process on said data acquired in accordance with environmental information that includes any of specifications and conditions of said function selected, said template, and data that has been acquired by using said function selected, and

said conversion process in accordance with said environmental information includes deletion of an amount of data in accordance with the restriction of memory capacity and conversion of the screen size, reduction in the number of colors or coordination of data formats in accordance with the display device or the results of analysis of said multimedia data.

9. The multimedia data processing device according to claim 2, wherein said action implementing unit is characterized by acquiring data by using said function selected and by carrying out a conversion process on said data acquired in accordance with environmental information that includes any of specifications and conditions of said function selected, said template, and data that has been acquired by using said function selected, and

said conversion process in accordance with said environmental information is a process for converting said data acquired to predetermined alternative data.

10. The multimedia data processing device according to claim 2, wherein said action implementing unit acquires data by using said function selected and determines whether or not the usage of said data acquired is required in accordance with environmental information that includes any of specifications and conditions of said function selected, said template, and data that has been acquired by using said function selected.

11. The multimedia data processing device according to claim 2, wherein said action implementing unit carries any of carrying out said process after noticing that said process is to be carried out via a user interface, accepting confirmation that said process is to be carried out, and accepting selection whether or not said process is to be carried out immediately before said process determined is carried out.

12. The multimedia data processing device according to claim 1 or 2, wherein transition information of the state of reproduction of the media data is described in said template, and said script implementing unit manages the transition of said state of reproduction of said media data.

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13. The multimedia data processing device according to claim 12, wherein said script implementing unit carries out said transition of the state of reproduction of media data in accordance with said transition information of the state of reproduction of media data that is described in said template when said action determining unit acquires an event by using said function selected.

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14. The multimedia data processing device according to claim 13, wherein said event is a time event that includes at least one of arrival at a predetermined time or running out of a timer.

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15. The multimedia data processing device according to claim 1 or 2, wherein transition information of the state of reproduction of media data is described in said template together with time restriction, and said script implementing unit chronologically manages said transition of the state of reproduction of the media data.

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16. The multimedia data processing device according to claim 1 or 2, wherein transition information of the state of reproduction of media data is described in said template, and

said multimedia data processing device further comprises:

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a thumbnail generating unit (1313) for generating a thumbnail of media data that is included in said template; and

a preview unit (1313) for displaying said thumbnail generated on the basis of said transition information.

17. The multimedia data processing device according to claim 1 or 2, further comprising:

5 a template acquiring unit (1015) for acquiring said template that includes said script;

a selecting unit (1001) for selecting a desired template from said template acquired; and

a data change confirming unit (1008) for confirming said changing in said data.

10 18. The multimedia data processing device according to claim 17, wherein said template acquiring unit acquires a template that has been stored in a memory device within said multimedia data processing device.

15 19. The multimedia data processing device according to claim 17, wherein said template acquiring unit acquires a template from another device via a network.

20 20. The multimedia data processing device according to claim 17, wherein said template acquiring unit acquires a template from a message that has been received via a network.

21. The multimedia data processing device according to claim 1 or 2, further comprising a control unit (1007) for controlling said changing in said data in accordance with said script.

25 22. The multimedia data processing device according to claim 1 or 2, further comprising:

a sequence managing unit (1313) for managing a sequence that is described in said script; and

a changeable data proposing unit (1313) for showing changeable data in response to said sequence.

5 23. The multimedia data processing device according to claim 1 or 2, further comprising:

a sequence managing unit (1313) for managing the sequence that is described in said script; and

an operation guidance proposing unit (132) for proposing an operation guidance for carrying out data change in response to said sequence.

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24. The multimedia data processing device according to claim 23, wherein said script implementing unit further comprises a reproduction time controlling unit (1314) for controlling reproduction time of said data changed in accordance with a predetermined rule in the case where an operation of said data change is carried out.

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25. The multimedia data processing device according to claim 1 or 2, wherein said script implementing unit further comprises a media time selecting unit (1313) for determining and selecting a portion from said data that is referred from said script where implementation or termination can be carried out, and

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said script implementing unit pauses at said portion when implementing said selected portion from among said data.

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26. The multimedia data processing device according to claim 25, wherein said portion that is selected by said media time selecting unit is a portion where changeable media data switches.

27. The multimedia data processing device according to claim 26, wherein said script implementing unit further comprises a sequence changing point

determining unit (1313) for determining the changing point of the sequence that is the closest in the future from this time, and

said script implementing unit skips the reproduction of said data to said sequence changing point determined next.

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28. The multimedia data processing device according to claim 26, wherein said script implementing unit further comprises a sequence changing point determining unit (1313) for determining the changing point of the sequence that is the closest in the future from this time, and

10 said script implementing unit skips the reproduction of said data to said sequence changing point determined closest past.

29. The multimedia data processing device according to claim 1 or 2, wherein the start portion or the end portion of a changed section of said data is added to a
15 predetermined portion of said data in the case where the operation of said data change is carried out.

30. The multimedia data processing device according to claim 1 or 2, wherein the script and data outputting unit deletes at least a portion of one of said script that is
20 included in said template and said data that is referred from said script before outputting.

31. The multimedia data processing device according to claim 30, wherein at least one of said script that is included in said template and said data that is referred from said script is written in XML (Extensible Markup Language), and said script and
25 data outputting unit deletes said data that is referred from said script in response to the description of a predetermined tag.

32. The multimedia data processing device according to claim 1 or 2, wherein

said script and data outputting unit outputs at least one of said script and said data changed to a memory device inside said multimedia data processing device.

5 33. The multimedia data processing device according to claim 1 or 2, wherein said script and data outputting unit outputs at least one of said script and said data changed to another device via a network.

10 34. The multimedia data processing device according to claim 33, which outputs at least one of said script and said data changed.

 35. The multimedia data processing device according to claim 33, wherein said script and data outputting unit outputs at least one of said script and said data changed to said other device by using MMS (Multimedia Messaging Service).

15 36. A multimedia data processing device, comprising:
 a template list acquiring unit (110) for acquiring a list of templates that have been formed so as to include scripts;
 a template list displaying unit (144) for displaying said list of templates;
 a template selecting unit (142) for selecting one or more desired template from
20 said list of displayed templates; and
 a message transmitting unit (110) for transmitting said template selected to another device as a message.

25 37. The multimedia data processing device according to claim 36, wherein said script is characterized by including at least one of reference information to reproduced data, a method for reproducing said data, and action information for specifying the function that is to be carried out in the terminal for reproducing said data.

38. The multimedia data processing device according to claim 37, wherein said action information specifies at least one function from among a video or still image taking function, a function of acquiring text information inputted by a user, a sound recording function, a function of acquiring position information, and a function of acquiring data.

39. The multimedia data processing device according to claim 36, further comprising a script implementing unit (131) for reproducing said data that is referred from a script in accordance with said script.

40. The multimedia data processing device according to claim 36, further comprising a communication interlocutor function acquiring unit (110) for acquiring the function of a communication interlocutor apparatus, wherein
said template list acquiring unit acquires a list of templates that can be implemented using said function that is included in said function acquired of said communication interlocutor apparatus.

41. The multimedia data processing device according to claim 36, further comprising a communication interlocutor function acquiring unit (110) for acquiring the function of a communication interlocutor apparatus, wherein
said template list displaying unit displays a list of templates that can be implemented using said function that is included in said function acquired of said communication interlocutor apparatus.

42. A multimedia data processing device, comprising:
a template acquiring unit (110) for acquiring a template that has been formed so as to include a script;
a program acquiring unit (110) for acquiring a program from a broadcasting

station;

a contents acquiring unit (110) for acquiring internet contents which are provided via the internet; and

5 a script implementing unit (131) for reproducing at least one of data that is referred from said script, said program that has been acquired by said program acquiring unit, and said internet contents that have been acquired by said contents acquiring unit in accordance with said script that is included in said template.

10 43. The multimedia data processing device according to claim 42, wherein said template includes program list information,
said multimedia data processing device further comprises a reproduction data selecting unit (142) for selecting one or more program or internet contents on the basis of said program list information, and
15 said script implementing unit reproduces said program or said internet contents selected.

44. A multimedia data processing program for allowing a computer to carry out the process of a template that has been formed so as to include a script, which allows the computer to carry out:

20 the script implementing step (S1101) of reproducing data that is referred from said script that is included in said template in accordance with said script;
the user changeable data determining step (S1110) of determining a portion that can be changed by a user from among said data that is referred from said script;
the data changing step (S1205) of changing said portion changeable by using a
25 function of a multimedia data processing device; and
the script and data outputting step (S1103) of outputting at least one of said script and said data changed.

45. A multimedia data processing program for allowing a computer to carry out the process of a template that has been formed so as to include a script, which allows the computer to carry out:

5 the script implementing step (S16) of reproducing data that is referred from said script that is included in said template in accordance with said script;

the terminal function selecting step (S17) of selecting a function of a multimedia data processing device in accordance with said script that is included in said template;

the action determining step (S81) of determining which process is to be carried out for said data that is referred from said script by using said function selected;

10 the action implementing step (S82) of implementing said process determined;

the data changing step (S85) of changing said data that is referred from said script; and

the script and data outputting step (S25) of outputting at least one of said script and said data changed.

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46. The multimedia data processing program according to claim 45, wherein time restriction for determining an action that is carried out on said data that is referred from said script is described in said template, and said action implementing unit carries out said determined process in accordance with said time restriction.

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47. The multimedia data processing program according to claim 44 or 45, wherein transition information of the state of reproduction of media data is described in said template, and said transition of the state of reproduction of media data is managed in said script implementing step.

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48. The multimedia data processing program according to claim 44 or 45, wherein transition information of the state of reproduction of media data is described in said template together with time restriction, and said transition of the state of

reproduction of media data is chronologically managed in said script implementing step.

49. The multimedia data processing program according to claim 44 or 45,
wherein

5 transition information of the state of reproduction of media data is described in
said template, and

the multimedia data processing program further allows the computer to carry
out:

10 the thumbnail generating step (S16) of generating a thumbnail of media data that
is included in said template; and

the preview step (S18) of displaying said thumbnail generated on the basis of
said transition information.

50. The multimedia data processing program according to claim 44 or 45,
15 which further allows the computer to carry out:

the template acquiring step (S12) of acquiring said template that includes said
script;

the selecting step (S1100) of selecting a desired template from said acquired
template; and

20 the data change confirming step (S1100) of confirming said changing in said data.

51. The multimedia data processing program according to claim 44 or 45,
which further allows the computer to carry out the restricting step (S121) of restricting
said changing in said data in accordance with said script.

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52. The multimedia data processing program according to claim 44 or 45,
which further allows the computer to carry out:

the sequence managing step (S1401) of managing a sequence that is described in

said script; and

the changeable data proposing step (S1402) of proposing changeable data in response to said sequence.

5 53. The multimedia data processing program according to claim 44 or 45, which further allows the computer to carry out:

the sequence managing step (S1401) of managing a sequence that is described in said script; and

10 the operation guidance proposing step (S1402) of proposing an operation guidance for carrying out data change in response to said sequence.

54. The multimedia data processing program according to claim 53, which further allows the computer to carry out the reproduction time controlling step (S15) of controlling the reproduction time of said data changed in accordance with a
15 predetermined rule in said script implementing step in the case where an operation of said data change is carried out.

55. The multimedia data processing program according to claim 44 or 45, which further allows the computer to carry out:
20 the media time selecting step (S15) of determining and selecting a portion of said data that is referred from said script where implementation or termination can be carried out in said script implementing step; and

said portion is paused when implementing said portion selected of said data in said script implementing step.

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56. The multimedia data processing program according to claim 55, wherein said portion that is selected in said media time selecting step is a portion where changeable media data switches.

57. The multimedia data processing program according to claim 56, which further allows the computer to carry out:

5 the sequence change selecting step (S1202) of determining a sequence changing point that is the closest in the future from this time in said script implementing step; and
the reproduction of said data is skipped to said sequence changing point determined next in said script implementing step.

10 58. The multimedia data processing program according to claim 56, which further allows the computer to carry out:

the sequence change selecting step (S1202) of determining a sequence changing point that is the closest in the past from this time in said script implementing step; and
the reproduction of said data is skipped to said sequence changing point determined closest past in said script implementing step.

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59. The multimedia data processing program according to claim 44 or 45, wherein the start portion or the end portion of the changed section of said data is added to a predetermined portion of said data in the case where an operation of said data change is carried out.

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60. A data structure for multimedia contents data, which is processed in a data processing device that includes a reproducing means for reproducing media data and an inputting means for receiving an input operation from a user, and which includes:

25 a reproduction describing unit for showing media data that is reproduced in said reproducing means of said data processing device; and

an input operation describing unit for showing an input operation that is received by said inputting means of said data processing device and a process that corresponds to said input operation, wherein

said multimedia contents data is processed so that predetermined media data is reproduced in said reproducing means of said data processing device, a predetermined input operation is received by said inputting means of said data processing device, and said data processing device carries out a process in accordance with said predetermined input operation on the basis of said input operation describing unit.

61. A data structure for multimedia contents data, which is processed in a data processing device that includes a reproducing unit for reproducing media data and an inputting unit for receiving an input operation from a user, and which includes:

a reproduction describing unit for showing media data that is reproduced in said reproducing unit of said data processing device;

an input operation describing unit for showing an input operation that is received by said inputting unit of said data processing device and a process that corresponds to said input operation; and

a schedule describing unit for managing time of effect of said media data that is reproduced in said reproducing unit of said data processing device and time of effect of said input operation that is received by said input unit, wherein

said multimedia contents data is processed so that predetermined media data is reproduced in said reproducing unit of said data processing device at a predetermined time on the basis of said schedule describing unit, a predetermined input operation is received by said inputting unit of said data processing device at said predetermined time, and said data processing device carries out a process that corresponds to said predetermined input operation at said predetermined time on the basis of said input operation describing unit.

62. The data structure of multimedia contents data according to claim 60 or 61, wherein said process that corresponds to said input operation received by said input unit of said data processing device is a process for adding a change to said multimedia

contents data.

63. The data structure of multimedia contents data according to claim 62,
wherein said process for adding said change to said multimedia contents data is a
5 process for replacing a portion of said multimedia contents data.

64. The data structure of multimedia contents data according to claim 62,
wherein said process for adding said change to said multimedia contents data is a
process of adding data that is obtained by replacing a portion of said multimedia
10 contents data to said contents data.

65. The data structure of multimedia contents data according to claim 62,
wherein said process for adding said change to said multimedia contents data is a
process for adding data that is obtained by replacing a portion of said multimedia
15 contents data in a predetermined subsequent process to said multimedia contents data.

66. The data structure of multimedia contents data according to claim 60 or 61,
wherein said multimedia contents data is data that is described in script language.